

A.  
(initial)

connector may be attached to a mask proximate to a patient's mouth. "Y" tubes are therefore used in applications that employ masks and those that employ endotracheal tubing. While one fork of the "Y" connector is supplied with breathing gas from the humidifier, the other fork of the "Y" connector typically provides an exhalation passageway for removing air from the patient.

(N.C.)

Please replace the Title page of the specification with the enclosed new Title page (a marked up copy of the originally filed Title page is also attached).

#### REMARKS

The present Preliminary Amendment makes a change to the Background section of the application. The changes were made in order to correct for an erroneously included statement concerning the use of a "Y" connector. Applicants submit that the amended material is not new matter.

Also, a new Title page has been included which shows all of the inventors. Two of the inventors were inadvertently left off of the originally filed Title page.

The Examiner is encouraged to contact the undersigned at his convenience to resolve any remaining issues.

Respectfully submitted,

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Date

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Attorney Docket No.: BAL-108 (17451)

## **Title of the Invention**

MEDICAL CONNECTOR

## **Background**

Endotracheal intubation is a common procedure in the field of respiratory medical care. Endotracheal intubation tubes are used in many situations for providing artificial airways for passage of respiratory gasses and medical procedure devices to patients. For instance, endotracheal tubes may be used to insert a catheter therethrough in order to clean lung secretions from a patient. Endotracheal tubes may be used in situations where patients have stopped independent breathing and are required to be supported on a ventilator. In addition, endotracheal tubing may be used for other procedures such as: oxygenation of the lungs; elimination or reduction of residual carbon dioxide from the lungs; visual inspection of portions of the respiratory system; sampling sputum and gasses; measuring parameters such as flow rates, pressure, and temperature of gasses within the respiratory system; and/or the administration of medication, gasses, and/or lavage.

Some respiratory circuits may include a humidifier. Humidifiers are important because breathing gasses supplied to a patient must be warm and humidified in order to provide quality inhalation therapy. Additionally, the use of humidifiers in a respiratory circuit is particularly important when patients are connected to a ventilator

for lengthy amounts of time. Typically, a ventilator supplies air to a humidifier which then moisturizes and warms the air. This warm and humid air is then supplied via an endotracheal tube to the patient. The endotracheal tube is usually connected to a "Y" connector, <sup>Alternatively, the "Y" connector may be</sup> ~~that is~~ attached to a mask proximate to the patient's mouth. While one fork

5 of the "Y" connector is supplied with breathing gas from the humidifier, the other fork of the "Y" connector typically provides an exhalation passageway for removing air from the patient.

It is often the case that a patient who is connected to such a circuit for prolonged periods of time will experience discomfort when the patient moves and pulls  
10 on the various tubing. One solution to this problem is the use of flexible tubing, however in many applications the use of flexible tubing is either not possible or impractical. For instance, it could be possible that medical tubing that is flexible enough will crimp and prevent the flow of air through the tubing. As such, many respiratory circuits employ moderate to rigid plastic tubing in construction of the  
15 endotracheal tubes and other components in the respiratory circuit.

U.S. Patent No. 5,694,922 assigned to Ballard Medical Products shows a medical connector with hermetic seals. These hermetic seals are useful in eliminating patient discomfort because they allow for the respiratory circuit to move and swivel in response to a patient's movements, hence reducing the force transmitted to a patient during  
20 such movement. U.S. Patent No. 5,694,922 is hereby incorporated by reference in its entirety for all purposes.

"Y" tubes are therefore used in applications that employ masks and those that employ endotracheal tubing. }



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**Patent Application**

**of**

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**and**

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**for**

**MEDICAL CONNECTOR**

*and*

*Edward B. Madsen*

*and*

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